AMENDME	NT OF SOL	CITATION/MODIFIC	CATION OF	CONTRACT	1, COI	NTRACT ID CODE		PAGE OF	PAGES	
2. AMENDME	NT/MODIFICAT	TION NO.	3. EFFECTIV	E DATE	4. REQUISITIO	N/PURCHASE REQ. NO	). 5. P	ROJECT NO.	(If applicable)	
003			08/08/2	014						
6. ISSUED BY	7	CODE			7. ADMINISTE	RED BY (If other than Ite	em 6) COI	DE		
26 West Mail Co		al Protection Luther King		~			¥			3
8. NAME AND	ADDRESS OF	CONTRACTOR (No., street	et, county, State an	d ZIP Code)	(x) 9A. AMEND	MENT OF SOLICITATION	ON NO.			
505 KINC		AL INSTITUTE			98. DATED  ** 10A. MODIFEP-C-1 0008		CT/ORDER NO.			
CODE (b)(	(A)		FACILITY CO	חב		(SEE ITEM 13)				
(0)(	(4)				08/24					
				EM ONLY APPLIES TO A  The hour and date specific			☐ is extended,	∏is not ext		
separate let THE PLACE virtue of this to the solicit	DESIGNATED amendment you tation and this a	which includes a reference FOR THE RECEIPT OF but desire to change an off- mendment, and is receive	e to the solicitation OFFERS PRIOR or already submit of prior to the open	ndment; (b) By acknowledgen and amendment number RTO THE HOUR AND DAtted, such change may be bening hour and date speci	ers. FAILURE O TE SPECIFIED made by telegra fied.	F YOUR ACKNOWLEDG MAY RESULT IN REJEC m or letter, provided eac	GEMENT TO BE RICTION OF YOUR C	ECEIVED AT OFFER. If by r makes refere		
See Sch		ROPRIATION DATA (If re	quirea)	Net	Decrease	<b>:</b>	-\$8,	346.32		
CHECK ONE	B. THE ABOV appropriation	E NUMBERED CONTRA on date, etc.) SET FORT	CT/ORDER IS N H IN ITEM 14, P	(Specify authority) THE MODIFIED TO REFLECT I URSUANT TO THE AUTH	HE ADMINISTR					
	D. OTHER (S	pecify type of modification	and authority)	· · · · · · · · · · · · · · · · · · ·	<del></del>		· · · · · · · · · · · · · · · · · · ·			
X	Limitat	ion of Funds	Notice				1			
E. IMPORTAN	T: Contract	or 🗵 is not.	is required	to sign this document and	return	copies	to the issuing office	∍.		2
DUNS Num The purp Unliquio TOPO: Wi	mber: (b	)(4) this modifica ligations exe agel	tion is	<i>ICF</i> section headings, inci				he		e e
Reason f	for Modi:	fication : Fu	nding On	ly Action						
From: Fo: Continue Except as prov	\$150, \$141, ed vided herein, all			orenced in Item 9A or 10A,						
IOA. NAME A	AD HILE OF S	GNER (Type or print)		ž		ND TITLE OF CONTRAC	TING OFFICER (	yp <del>o</del> or print)		
	CTOR/OFFER	OR		15C. DATE SIGNED	16	W. Davis	ELECT 8ign	RONIC	DATE SIGNED /08/2014	
				<u> </u>		······································				

NSN 7540-01-152-8070 Previous edition unusable STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53,243 
 CONTINUATION SHEET
 REFERENCE NO. OF DOCUMENT BEING CONTINUED
 PAGE
 OF

 EP-C-11-038/0008/003
 2
 2

NAME OF OFFEROR OR CONTRACTOR

BATTELLE MEMORIAL INSTITUTE

TEM NO.	SUPPLIES/SERVICES	QUANTITY		UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
*	CHANGES FOR LINE ITEM NUMBER: 1 Obligated Amount for this modification: -\$8,346.32 Incremental Funded Amount changed from				
	\$150,000.00 to \$141,653.68  CHANGES FOR ACCOUNTING CODE:				
	11-12-C3-261F000-303FB3A-2532-HQ00BG00-12261FC003- 002				
	Amount changed from \$25,000.00 to \$23,477.44				e e
	CHANGES FOR ACCOUNTING CODE: 12-T-72DP-303DD2-2505-HQ00BM00-1272DP5019-001 Amount changed from \$50,000.00 to \$43,176.24			,	4.
	The Revised funding break-out is as follows:		s.		,
	Cost: \$\big(b)(4)\\ Fee: \$\big(\text{Total}: \\$141,653.68\\				
ji	Delivery: 30 Days After Award Delivery Location Code: CPOD CPOD US Environmental Protection Agency				
:	26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268 USA				·
	Payment:	,			9 F g
2	RTP Finance Center US Environmental Protection Agency RTP-Finance Center				
a a	Mail Drop D143-02 109 TW Alexander Drive Durham NC 27711				e ga
a a	FOB: Destination Period of Performance: 08/27/2012 to 08/27/2013		8		
				n e	u.
				u	* * * *
			<i>2</i> ,	pi	*
1					

AMENDMENT OF SOLICITATION	N/MODIFIC	ATION OF C	ONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	222	3. EFFECTIVE	DATE	4. R	EQUISITION/PURCHASE REQ. NO.	5. PRC	DJECT NO. (If applicable)
002		See Blo	ck 16C				8
6. ISSUED BY	CODE	CPOD		7. /	ADMINISTERED BY (If other than Item 6)	CODE	T
CPOD US Environmental Pro 26 West Martin Luthe Mail Code: NWD Cincinnati OH 45268							
8. NAME AND ADDRESS OF CONTRAC	TOR (No. street	t county State and	t 7IP Code)	<u></u>	9A. AMENDMENT OF SOLICITATION NO.		
BATTELLE MEMORIAL INS 505 KING AVE COLUMBUS OH 432012693	TITUTE			x	9B. DATED (SEE ITEM 11)  10A. MODIFICATION OF CONTRACT/ORDER NO EP-C-11-038	D, ,	
				1 1	10B. DATED (SEE ITEM 13)		
CODE (b)(4)		FACILITY CO	DE		08/24/2012		8
		11. THIS IT	EM ONLY APPLIES TO A	MEN	DMENTS OF SOLICITATIONS		·
	change an offe and is received	r already submit prior to the ope	ted, such change may be ening hour and date spec	e mad ified.	SPECIFIED MAY RESULT IN REJECTION OF YO de by telegram or letter, provided each telegram or ecrease:	letter m	
	APPLIES TO M	ODIFICATION C	F CONTRACTS/ORDER	s. IT	MODIFIES THE CONTRACT/ORDER NO. AS DES	CRIBE	D IN ITEM 14.
B. THE ABOVE NUMBEI appropriation date, etc.	RED CONTRAC ), SET FORTH	CT/ORDER IS M I IN ITEM 14, PU	ODIFIED TO REFLECT URSUANT TO THE AUTI	THE . HORI	NGES SET FORTH IN ITEM 14 ARE MADE IN TH ADMINISTRATIVE CHANGES (such as changes in TY OF FAR 43.103(b).		
C. THIS SUPPLEMENTA	L AGREEMEN	T IS ENTERED	INTO PURSUANT TO A	UTHO	DRITY OF:		
D. OTHER (Specify type	of modification	and authority)					
X Limitation o		25.5					
E. IMPORTANT: Contractor	∏is not.		o sign this document and	d retu	rn copies to the issuing	office.	
DUNS Number: (b)(4)	 nodifica	tion is			g solicitation/contract subject matter where feasible funds that are not expect		to be
LIST OF CHANGES:							
Reason for Modificati	on : Fu	nding On	ly Action				
Obligated Amount for	this Mod	dificati	on: -\$70,000	.00			
Continued							
	conditions of the	e document refe	renced in Item 9A or 10A	l, as f	neretofore changed, remains unchanged and in full	force a	and effect.
15A. NAME AND TITLE OF SIGNER (Ty)				_	A. NAME AND TITLE OF CONTRACTING OFFICE		
				Ca	amille W. Davis		
15B. CONTRACTOR/OFFEROR			15C. DATE SIGNED		B. UNITED STATES OF AMERICA		16C. DATE SIGNED
(Signature of person authorized	t to sign)			-	(Signature of Contracting Officer)		

 CONTINUATION SHEET
 REFERENCE NO. OF DOCUMENT BEING CONTINUED
 PAGE
 OF

 EP-C-11-038/0008/002
 2
 2

NAME OF OFFEROR OR CONTRACTOR

TEM NO.	SUPPLIES/SERVICES	QUANTIT	YUNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
-	New Total Obligated Amount for this Award:	1			
	\$150,000.00		1		,
2	9	1	1		, The state of the
55	Incremental Funded Amount changed		1		9
-	From: \$220,000.00		1	12.	
	To: \$150,000.00			¥1	*
	CHANGES FOR LINE ITEM NUMBER: 1				*
	Obligated Amount for this modification:		1		
	-\$70,000.00	J.	1		
	Incremental Funded Amount changed from				
	\$220,000.00 to \$150,000.00		1		
	CHANGES FOR ACCOUNTING CODE:				
	12-13-C-261E000-201FK7-253226A6F-13261EC080-001				8 8
	Amount changed from \$70,000.00 to \$0.00	1	1		İ
	The de-obligation break-out is as follows:				
4	Cost: $(\$(b)(4))$	ah.			8 4
2	Fee: (\$	10 II			,
	Total: (\$70,000.00)		ł		
					1
	The revised total Task Order funding is as follows:	ŀ	1		
	Cost: (b)(4)			, *	·
	Fee: \$				
	Total: \$150,000.00				
	Delivery: 30 Days After Award			a.	a .
, a	Delivery Location Code: CPOD	i		8	·
	CPOD		1		
	US Environmental Protection Agency				
	26 West Martin Luther King Drive	1			
	Mail Code: NWD	1		- 36	No.
	Cincinnati OH 45268 USA	1			
	Payment:				
	RTP Finance Center	1	1		
	US Environmental Protection Agency			2	×
	RTP-Finance Center				×
	Mail Drop D143-02	İ			
	109 TW Alexander Drive		1		
	Durham NC 27711		1		w.
	FOB: Destination	ļ			
	Period of Performance: 08/27/2012 to 08/27/2013		1	8	
					s.
ii.					v.
e ·	,			8	й
				G	1
					6
					100
ı		Ī	1		
		1	1 1		
				8	

AMENDMENT OF SOL	ICITATION/MODIFIC	ATION OF CONT	RACT	1. CONTRACT ID CODE	PAGE	E OF PAGES
2. AMENDMENT/MODIFICA	TION NO.	3. EFFECTIVE DATE	4. F	L REQUISITION/PURCHASE REQ. NO.	5. PROJEC	T NO. (If applicable)
001		02/26/2013	PR	-R4-13-00197		S S S S S S S S S S S S S S S S S S S
6. ISSUED BY	CODE	CPOD	7.	ADMINISTERED BY (If other than Item 6)	CODE	
CPOD US Environmenta 26 West Martin Mail Code: NWD Cincinnati OH	Luther King D			i.	L	* .
8. NAME AND ADDRESS OF	CONTRACTOR (No. street	county State and ZIP Co	de)	9A. AMENDMENT OF SOLICITATION NO.		· · · · · · · · · · · · · · · · · · ·
BATTELLE MEMORI 505 KING AVE COLUMBUS OH 432	AL INSTITUTE	, county, claid and any co	<u>~</u>	9B. DATED (SEE ITEM 11)  10A. MODIFICATION OF CONTRACT/ORDER EP-C-11-038	₹ NO.	
	×		p	10B. DATED (SEE ITEM 13)		
CODE (b)(4)		FACILITY CODE		08/24/2012		
	<u> </u>	11. THIS ITEM ON	LY APPLIES TO AMEN	IDMENTS OF SOLICITATIONS	-	
THE PLACE DESIGNATES virtue of this amendment ye	which includes a reference D FOR THE RECEIPT OF ( ou desire to change an offe amendment, and is received	to the solicitation and DFFERS PRIOR TO TH r already submitted, su prior to the opening h	amendment numbers. HE HOUR AND DATE ch change may be ma our and date specified.	receipt of this amendment on each copy of the FAILURE OF YOUR ACKNOWLEDGEMENT T SPECIFIED MAY RESULT IN REJECTION OF de by telegram or letter, provided each telegran	TO BE RECEIVE YOUR OFFER.	ED AT If by reference
13. THIS I	TEM ONLY APPLIES TO M	ODIFICATION OF CON	TRACTS/ORDERS. IT	MODIFIES THE CONTRACT/ORDER NO. AS	DESCRIBED IN	ITEM 14.
B. THE ABOV appropriati C. THIS SUP	VE NUMBERED CONTRAC ion date, etc.) SET FORTH PLEMENTAL AGREEMEN	T/ORDER IS MODIFIE IN ITEM 14, PURSUA F IS ENTERED INTO F	ED TO REFLECT THE NT TO THE AUTHOR	ADMINISTRATIVE CHANGES (such as chang ITY OF FAR 43.103(b).	<del>****</del>	
	Specify type of modification	and the second s				
X   Limitat	ion of Funds	Notice				
DUNS Number: (t	NDMENT/MODIFICATION (	Organized by UCF sec	•	ng solicitation/contract subject matter where fee	asible.)	
The purpose of TOPO: William H LIST OF CHANGES Reason for Modi Obligated Amoun New Total Oblig	agel: fication: Function this Modulated Amount for	nding Only A dification: or this Awar	Action \$70,000.00		order.	
CHANGES FOR LIN Obligated Amoun Continued	t for this mod	dification:		heretofore changed, remains unchanged and in	of all force and at	- 
15A. NAME AND TITLE OF S		accimatif teleteticed		neretorore changed, remains unchanged and in A. NAME AND TITLE OF CONTRACTING OF		
	4		d and	amille W. Davis	• • • • • • • • • • • • • • • • • • • •	
15B. CONTRACTOR/OFFER	OR	15C. [		B. UNITED STATES OF AMERICA		16C. DATE SIGNED
	· / · · · · · · · · · · · · · · · · · ·		1-			02/26/2013
(Signature of pers	son authorized to sign)			(Signature of Contracting Officer)		

CONTINUE TION OFFE	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
CONTINUATION SHEE	EP-C-11-038/0008/001	2	2

NAME OF OFFEROR OR CONTRACTOR
BATTELLE MEMORIAL INSTITUTE

ITEM NO.	SUPPLIES/SERVICES	QUANTITY		UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	Incremental Funded Amount changed from			4	8
	\$150,000.00 to \$220,000.00				
ĺ	NEW ACCOUNTING CODE ADDED:	ľ			
	Account code:				2
	12-13-C-261E000-201FK7-253226A6F-13261EC080-001				
	Beginning FiscalYear 12				25
	Ending Fiscal Year 13	[		11	£ 0
	Fund (Appropriation) C	[			
Į.	Budget Organization 261E000	1	ļ ,	91	9
	Program (PRC) 201FK7				
	Budget (BOC) 2532			**	
	Job # (Site/Project)				2 7
	Cost Organization 26A6F		. 1		
10	DCN-LineID 13261EC080-001			,	
	Quantity: 0				
	Amount: \$70,000.00	İ	1		
	The break-out for the incremental funding is as				
	follows:			27	75
*	Cost: \$(b)(4)				
	Fee:	ļ	137		· ·
	TOTAL: \$70,000.00	ļ			
		1	,		
	The current total funding break-out is as follows:	1		s.	,
	Cost: \$ (b)(4)				
	Fee: \$			N	
	TOTAL: \$220,000.00			is .	*
	Payment:				2
	RTP Finance Center	ĺ			
	US Environmental Protection Agency		1 1	, 	
2	RTP-Finance Center		1 1		9)
16	Mail Drop D143-02 109 TW Alexander Drive		1		
	Durham NC 27711		1		9
£ 0	FOB: Destination		i l		y r
	Period of Performance: 08/27/2012 to 08/27/2013		1		
1	,	42			
1					
. )					
1					
1		l	8		e e
- 1		ł			
		l			
				10	
ļ					4
12				9	b "
			] ]		*
- [		1			2
<i>2</i>		1			
		ĺ			
26					
				Si Ni	G.
	-	l	1 1		
		i	1 1	1	

	OR	DER FOR SU	PPLIES OR SERV	ICES					OF PAGES	
IMPORTANT:	: Mark all packages and papers with	contract and/or o	rder numbers.					1		16
1. DATE OF OF	2. CONTRACT NO. (If any) EP-C-11-038						6, SHIP TO:			
08/24/20	)12 EP-C-11-038			a. NAME	OF CC	ONSIGNEE				1
		T		_						
3. ORDER NO.		socialized deposits to at a	REFERENCE NO.	CPOD						
8000		See Sched	ule							
CPOD	FICE (Address correspondence to)			2.0	nvir	onmental Prot				
26 West	ronmental Protection A Martin Luther King Dr					Martin Luther e: NWD	King Dr	ive		
Mail Coc							·	T	1	
Cincinna	ati OH 45268	e s		c. CITY Cinc:	inna	ti		d. STATE OH	e. ZIP CC 45268	DDE
7. TO:			·	f. SHIP V	/IA					
a. NAME OF CO	ONTRACTOR E MEMORIAL INSTITUTE					8, TY	PE OF ORDER			· · · · · · · · · · · · · · · · · · ·
b. COMPANY N	IAME	- National Control of the Control of	· · · · · · · · · · · · · · · · · · ·	a. Pl	IRCHA	SE SE		X b. DELIVERY	/	
c. STREET ADD	DRESS			REFERE				D. DELIVERY		
505 KING	G AVE							Except for billing reverse, this deliv	ery order is	subject
						<b>.</b>		to instructions cor only of this form a		
						ne following on the terms		subject to the terr		
d, CITY	<del></del>	e. STATE	f. ZIP CODE			pecified on both sides of the attached sheet, if any	,	of the above-fidin	Deleg Collis	act.
COLUMBUS		OH OH	432012693	including	deliver	y as indicated.				
9. ACCOUNTIN	G AND APPROPRIATION DATA			10. REQU	JISITIO	NING OFFICE				
	CLASSIFICATION (Check appropriate bo	ox(es))		CFOD				12, F.O.B. PO	INT	
a. SMALL	X b. OTHER THAN SMALL	c. DISADVA	NTAGED d. WO	MEN-OWNE	:D	e. HUBZone		Table is seened to Auto-		
f. SERVIC	E-DISABLED g. WOMEN-OWNEI		e (MOCE)	-0.4600				Destinat	llon	
	AN-OWNED ELIGIBLE UNDER	THE WOSB PROG	RAM L n. E	EDWOSB		T N				
	13. PLACE OF	1	14. GOVERNMENT B/L N	10.	<sup>1</sup> оппе	15. DELIVER TO F.O.B.	POINT	16. DISCOU	NT TERMS	
a INSPECTION Destinat						ON OR BEFORE (Date 30 Days Afte	r Award	3		
	120301111101		17. SCHEDULE (Se	e reverse for	r Rejec	l tions)	<del></del>			···
				QUANTITY	_	<del></del>	I	<del></del>	011	A LTITUTE A
ITEM NO. (a)		R SERVICES		ORDERED (c)		UNIT PRICE (e)	AMO (1		ACC	NTITY EPTED (g)
*	DUNS Number: (b)(4)									
	Technical Support for							8		
	Characterization and		g Technical		1		8			
	Support Center (SCMTS	C)			}	1		1		
	TOPO: William Hagel					1		1		
	Continued				1					
						į				
	18. SHIPPING POINT		19. GROSS SHIPPING V	VEIGHT	-	20. INVOICE NO.	<u> </u>			17(h)
		1				2 1				TOTAL (Cont.
					-					pages)
	Ĭ	2	1. MAIL INVOICE TO:							
	a. NAME RTP	Finance C	enter				\$0.00			7
SEE BILLING		49								
INSTRUCTIONS ON REVERSE	b. STREET ADDRESS US E	Environmen	tal Protectio	n Agen	су			, , , , , , , , , , , , , , , , , , , ,		
	(or P.O. Box)	-Finance C	enter							17(i) GRAND
	Mail	Drop D14	3-02							TOTAL
	The same that advantages about the same and	TW Alexan	der Drive				4350	952.00		
	c. CITY			d. STA	ATE.	e. ZIP CODE	7350,	234.00		1
	Durham			NO		27711				
22. UNITED S	STATES OF					23. NAME (Typed)				
AMERICA	A BY (Signature)					Camille W.				
**	. /					TITLE: CONTRACTING	ORDERING OF	FICER		

## ORDER FOR SUPPLIES OR SERVICES SCHEDULE - CONTINUATION

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

PAGE NO

2

CONTRACT NO. DATE OF ORDER ORDER NO. 8000 08/24/2012 EP-C-11-038 QUANTITY UNIT AMOUNT QUANTITY ITEM NO. UNIT SUPPLIES/SERVICES ACCEPTED ORDERED PRICE (d) (a) (b) (c) (f) (g) (e) Admin Office: US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268 Period of Performance: 08/27/2012 to 08/27/2013 0001 TSC Site Characterization and Monitoring Statistical Support Award Type: Cost-plus-fixed-fee Total Estimated Cost: \$ (b)(4) (b)(4)Fixed Fee: Term Form Requisition No: PR-ORD-12-00335, PR-ORD-12-02523 Accounting Info: 11-12-C3-261F000-303FB3A-2532-12261FC0 03-001 BFY: 11 EFY: 12 Fund: C3 Budget Org: 261F000 Program (PRC): 303FB3A Budget (BOC): 2532 DCN - Line ID: 12261FC003-001 Funding Flag: Partial Funded: \$0.00 Accounting Info: 11-12-C3-261F000-303FB3A-2532-HQ00BG00 -12261FC003-002 BFY: 11 EFY: 12 Fund: C3 Budget Org: 261F000 Program (PRC): 303FB3A Budget (BOC): 2532 Job #: HQ00BG00 DCN - Line ID: 12261FC003-002 Funding Flag: Partial Funded: \$25,000.00 Accounting Info: 11-12-C3-261F000-404F84A-2532-HQ00BG00 -12261FC003-003 BFY: 11 EFY: 12 Fund: C3 Budget Org: 261F000 Program (PRC): 404F84A Budget (BOC): 2532 Job #: HQ00BG00 DCN - Line ID: 12261FC003-003 Funding Flag: Partial Funded: \$75,000.00 Accounting Info: 12-T-72DP-303DD2-2505-HQ00BM00-1272DP5 019-001 BFY: 12 Fund: T Budget Org: 72DP Program (PRC): 303DD2 Budget Continued ... \$0.00 TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

## ORDER FOR SUPPLIES OR SERVICES SCHEDULE - CONTINUATION

PAGE NO

3

DATE OF OR 08/24/2	012 EP-C-11-038				ORDER N	NO.	
ITEM NO.	SUPPLIES/SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE		AMOUNT	QUANTITY ACCEPTED
(a)	(b)  (BOC): 2505 Job #: HQ00BM00 DCN -  Line ID: 1272DP5019-001  Funding Flag: Partial  Funded: \$50,000.00	(c)	(d)	(e)		<b>(f)</b>	(g)
	The obligated amount of award: \$150,000.00. The total for this award is	2 2 3			\$r		
		u a					20
		· .	o l		el el		21
							e e
							,
						, .	
÷							
	TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))					\$0.00	

#### PERFORMANCE WORK STATEMENT STREAMS II Task Order 0008, Battelle EP-C-11-038

TITLE: Technical Support for the Site Characterization and Monitoring Technical Support Center (SCMTSC)

Task Order Manager (TOM)	Alternate Task Order Manager (ATOM)
Name: William Hagel	Name: Felicia Barnett
Office: ORD/OSP	Office: ORD/OSP/STL
1650 Arch Street, 3HS40	61 Forsyth Street
Philadelphia, PA 19103	Atlanta, GA 30303
Phone: (215) 814-3053	Phone: (404) 562-8659
Fax: (215) 814-3015	Fax: (404) 562-8788
Email: Hagel, Bill@epa.gov	Email: Barnett, Felicia@epa.gov

PERIOD OF PERFORMANCE August 27, 2012 through August 27, 2012

#### BACKGROUND AND OBJECTIVES

The Office of Solid Waste and Emergency Response (OSWER), Regional Superfund Offices, and the Office of Research and Development (ORD) established the Superfund Technical Support Project (TSP) to provide technology-based assistance to EPA's Regional Remedial Project Managers (RPMs) and On-Scene Coordinators (OSCs) through ORD laboratories. The Project consists of a network of Regional Forums and a number of specialized Technical Support Centers (TSC).

A DESIGNATION & ASSESSMENT OF THE CO.

The Site Characterization and Monitoring Technical Support Center (SCMTSC) is managed by the Superfund and Technology Liaison Program (STL) of the Office of Science Policy (OSP). The objectives of the SCMTSC are to:

- Facilitate the use and implementation of state-of-the-science research products developed by EPA and other Federal research laboratories for regional EPA personnel to characterize and monitor hazardous constituents waste sites;
- 2. Ensure coordination and consistency in the application of contaminant characterization technologies;
- Provide high technology state-of-the-science information, products and services to Waste Program Project Managers;
- Facilitate the evaluation and application of innovative characterization and monitoring technologies and techniques at waste sites;
- Technical support through expert review of scientific documents related to hazardous site investigations and characterization.

#### SCOPE OF WORK

EPA addresses contamination of water, soil, and air at Superfund, Federal Facilities, Brownfield, and RCRA sites. The contractor will identify, investigate, research, and evaluate innovative technologies and processes and provide technical expertise to ensure that the planning of hazardous waste site characterizations and assessments uses sound science and that analytical sampling and monitoring methods and quality control requirements are the most effective for achieving the project objectives. The technical expertise and innovative technologies will include but not be limited to: 1) technologies for on-site measurements of inorganic and organic contaminants by field-portable X-ray fluorescence (FPXRF), ion mobility spectrometry, GCMS and geophysics; 2) providing special (non-routine) laboratory analysis; 3) designing valid sampling and monitoring approaches for determining the levels and geographical extent of site contaminants; 4) modeling contaminant(s) movement and disposition/deposition for remediation and risk assessment purposes; 5) providing or evaluating special (non-routine) contaminant identification (examples: Tentatively Identified Compounds (TICs), contaminant isomers, fingerprinting); and 6) providing evaluations of non-EPA developed work plans, sampling and analysis plans, quality assurance project plans, and other documents.

The following tasks may be performed, depending on the specific site characterization requirements. As all the resources provided by the EPA are site-specific cost recoverable, the SCMTSC Director will identify the site and the specific characterization objectives.

- Develop and assess sampling and/or monitoring strategies. Each
  sampling/monitoring strategy may be unique due to the individual characteristics of
  the site(s) and to the particular site objective for characterization or remediation
  objective(s). The recommendations and rationale of each strategy shall be
  thoroughly documented. Apply appropriate procedures to address site
  characterization requirements. This may involve contaminant or ground water
  modeling to determine the geographical boundaries of contaminants.
- 2. Execute a project Quality Assurance/Quality Control (QA/QC) Plan. The QA/QC criteria must be specific to each site's characterization requirements (definitions in Appendix B).
- Implement field and laboratory contaminant measurement methods to identify contaminants, determine concentrations, and assess the applicability of remedial technologies.
- Implement laboratory and on-site state-of-the-science measurement technologies that are cost and time-effective.
- 5. Evaluate reports, models, and work plans, sampling/monitoring protocols, and analytical protocols and approaches.
- 6. Implement quick-response on-site field measurements, laboratory analyses, or monitoring design evaluations/optimizations to meet time-critical monitoring and emergency response objectives. Field measurement methods may include FPXRF, Geophysics, and selected analytical field methods. Laboratory analysis may include, but are not limited to, Volatile Organic Analysis (VOAs), semi-volatiles, inorganics,

and radiochemistry.

- Provide technical support to regions or the SCMTSC Director at EPA meetings
  pertaining to documentation, validity and authenticity of data, innovative
  measurement technologies, analytical methods, and sampling or monitoring design
  approaches.
- 8. Develop issue papers that provide state-of-the-science guidance in areas that impact site characterization, technologies.
- 9. Provide report(s) that document the application and performance of contaminant characterization technologies applied at waste site(s).
- Provide reliable and accurate information pertaining to innovative site characterization and remediation technologies.
- 11. Assist EPA regions and STL personnel in implementing site characterization technologies at waste sites.

Whenever practical, projects shall adhere to the National Geospatial Data Policy (NGDP), which establishes principles, responsibilities, and requirements for collecting and managing geospatial data used by Federal environmental programs and projects within the jurisdiction of the U.S. Environmental Protection Agency (EPA). This Policy also establishes the requirement of collecting and managing geospatial metadata describing the Agency's geospatial assets to underscore EPA's commitment to data sharing, promoting secondary data use, and supporting the National Spatial Data Infrastructure (NSDI).

Projects using "secondary geospatial data," that is, data that is a final output from another project or source, must be reviewed for FGDC compliance prior to use.

#### **DELIVERABLES**

Deliverables are associated with specific Technical Directive Documents (TDDs) (refer to section on Technical Directives and Task Management below). Typical deliverables may include but are not limited to:

- 1. Financial status and progress reports;
- 2. Site or task-specific quality assurance/quality management plans;
- 3. Technical reports that may be subject to EPA peer review procedures; and
- 4. Brief summary reports at the conclusion of each project.

#### Technical Directives (TDs) and Task Management:

This task order (TO) will consist of a number of technical directives (TDs). The contractor will be notified electronically by the Task Order Manager (TOM) when technical support is required through the issuance of a TD. A TD presents the entire scope of work to be performed by the contractor for an

individual project. TDs are comprised of up to three (3) Technical Directive Forms (TDFs). These forms are used to request, manage, and deliver specific units of work within the scope of this Performance Work Statement.

Each TD assignment will be formatted in a manner similar to the example forms shown in Appendix A. On these forms, the TOM will provide the contractor with the overall objectives, schedules, deliverables and other information necessary to conduct the TD. The forms will also specify any details needed by the contractor to conduct the specific TD.

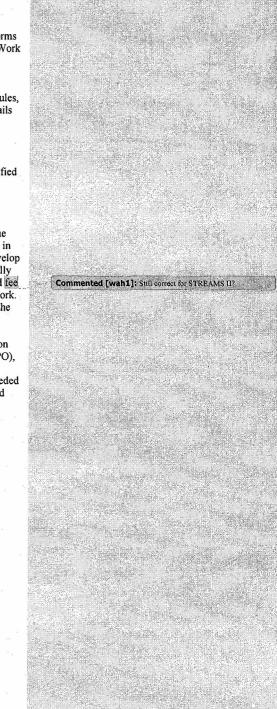
Prior to preparing a technical proposal in response to a TD, the contractor shall determine whether they would have any conflict of interest (COI) in conducting the work. The contractor shall notify the TOM if they have a conflict of interest and the nature of the conflict. Should COI be identified in response to a TD, the contractor shall take no further action unless authorized by the Contracting Officer (CO). A report detailing the issues of the conflict of interest shall be sent to the CO, with electronic copies to the EPA Project Officer (PO) and TOM.

Under this technical support TO, individual Technical Directives (TDs) will be issued by the EPA TOM. The TOM shall electronically send the TD to the contractor's Project Manager as defined in the technical proposal for this TO, with copies going to the EPA CO and PO. The contractor shall develop a technical proposal (including a cost estimate) within five (5) working days and submit it electronically to the TOM with copies to the CO and PO. The cost estimate in the work plan shall be cost plus fixed the and will provide an estimate of the labor hours, other direct costs and indirect costs to complete the work. The total of the TDs shall not exceed the available funding for the task order. The TOM shall notify the contractor's Project Manager (and EPA PO and CO) electronically when the technical proposal is approved. Work on the TD shall not begin until the technical proposal is approved. If the scheduled work appears that it will exceed the approved technical proposal budget or schedule, a TD modification shall be sent to the TOM for approval. Upon TD modification approval, (with copies to the CO and PO), the contractor may continue working to the limits in the technical proposal. The contractor shall not perform any work that is not described in a TD. Under no circumstances can the TO funding be exceeded without a task order modification by the Contracting Officer. Each part of the TD process is described below.

<u>TDF 1 – Technical Directive Assignment</u> This form is issued by the TOM and describes what is expected to be accomplished. It includes the specific work to be performed by the contractor, the required deliverable(s)/products, and any special instructions, schedules, and delivery or acceptance criteria.

<u>TDF 2 - Technical Proposal</u> This form is generated by the contractor in response to TDF1 and includes information such as the following: a technical proposal that includes a brief discussion of the contractor's understanding of what is required; a detailed description of how the work is to be performed; the deliverable(s) that will be developed; implementation methods when appropriate; any special technologies or procedures to be employed; an estimate of the start and completion dates; a cost estimate (skill level(s), number of personnel to be assigned, labor hours for each person, materials/equipment, travel, subcontracts, or information/documentation, etc.); and any assumptions employed in making the proposal. The EPA must accept this proposal before the contractor may begin work.

<u>TDF 3 - Modification</u> This form can be initiated by either the EPA or the contractor. Whenever items change in TDF1 or TDF2, a TDF3 must be generated to describe the



change. The following are examples of items that might change and require a TDF3: description/scope of work; deliverable(s); schedule; resources required. If work is not to be completed as originally agreed upon and a new completion date is required and/or additional hours are required, the TDF3 must include an explanation as to why the extension or additional resources are necessary. If the TDF1 is modified, then the TDF2 must be modified, and both modifications can be put on the same TDF3, clearly indicating which input is from the EPA and which is from the contractor. The TDF3 must be approved by EPA before the modification is implemented.

#### Appendix A

### Technical Directive Form #1 TECHINCAL DIRECTIVE EXAMPLE

Task Order Number: 0008
Technical Directive Number: 00

Title of Technical Directive: XX Chemical

Regional Requestor Name/Phone #: Project Manager, manager.project@epa.gov,

Region X, 202-555-0000

Site Name: XX Chemical; EPA ID# STDD000000000

Description of Work: Review of Site Investigation Plan

#### Background:

The XX Chemical Site consists of a 20-acre parcel of land located in Anywhere, USA. From the early 1930s until the mid-1980s, the chemical plant at the Site functioned as a blender of pesticides and fertilizers. Raw pesticides manufactured at other locations were blended with inert materials to produce commercial-grade products using air and hammer mills and wetting agents. Production ended in the 1980s.

Waste materials from the manufacturing processes, including waste generated during the cleaning of the processing equipment, were disposed in an on-site depression. Contaminants found in Site soil, ground water, surface water, and/or sediment, as well as in the tissue of fish caught downstream of the Site, include arsenic, lead, benzene, aldrin, chlordane, DDD, DDE, DDT, dieldrin, and methoxychlor.

#### Scope of Work:

The contractor shall review and evaluate the merits of the Sampling Plan A.

#### Quality Assurance Requirements:

All work shall be performed in accordance with the existing Contractor Quality Management Plan (QMP). Additional data quality objectives (DQOs) specific to the site and existing site QA documents shall be provided by Regional personnel, if needed. It is assumed that all data provided by the Region have been reviewed and meet the QA criteria in the site QAPP.

#### Deliverables and Acceptance Criteria:

Letter Report due one (1) month after contractor receives Site Investigation Report. Acceptance shall be determined by 100% review by the TOM and the Regional client.

# Conflict of Interest: The contractor shall determine if any potential or actual personal or corporate (COI) exists with the site that is the subject of this Technical Directive. The contractor shall report results of this certification / assessment in the technical proposal (Technical Directive Form #2) and, if appropriate, the steps taken to mitigate the COI. If the contractor determines that there is the potential for COI issues at this site, no work shall be initiated until the issue has been fully resolved or mitigated.

Name	Date	
Task Order Manager		

#### APPENDIX B

#### **NERL QA Requirements and Definitions**

EPA's Quality System Website: http://www.epa.gov/quality/

EPA's Requirements and Guidance Documents: http://www.epa.gov/quality/qa\_docs.html

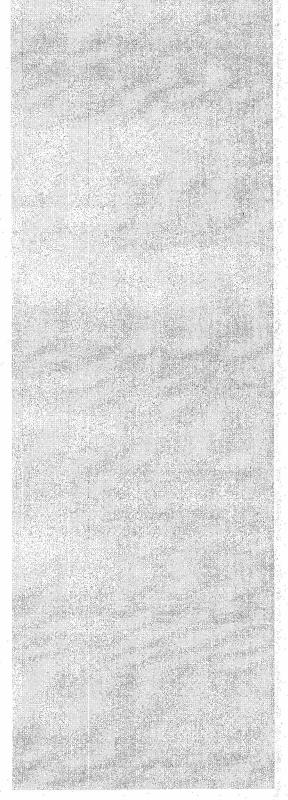
In accordance with EPA Order 5360.1 A2, conformance to ANSI/ASQC E4 must be demonstrated by submitting the quality documentation described herein. All quality documentation shall be submitted to the Government for review. The Government will review and return the quality documentation, with comments, and indicate approval or disapproval. If the quality documentation is not approved, it must be revised to address all comments and shall be resubmitted to the Government for approval. Work involving environmental data collection, generation, use, or reporting shall not commence until the Government has approved the quality documentation. The QAPP shall be submitted to the Government at least thirty (30) days prior to the beginning of any environmental data gathering or generation activity in order to allow sufficient time for review and revisions to be completed. After the Government has approved the quality documentation, the Contractor shall also implement it as written and approved by the Government.

#### **Definitions:**

Environmental Data - These are any measurements or information that describe environmental processes, location, or conditions; ecological or health effects and consequences; or the performance of environmental technology. For EPA, environmental data include information collected directly from measurements, produced from software and models, and compiled from other sources such as data bases or the literature.

Quality Assurance (QA) - Quality assurance is a system of management activities to ensure that a process, item, or service is of the type and quality needed by the customer. It deals with setting policy and running an administrative system of management controls that cover planning, implementation, and review of data collection activities and the use of data in decision making. Quality assurance is just one part of a quality system.

**Quality Assurance Project Plan (QAPP)** - A QAPP is a document that describes the necessary quality assurance, quality control, and other technical activities that must be implemented to ensure that the results of the work performed will satisfy the stated performance criteria. A QAPP documents project-specific information.



**Quality Control (QC)** - Quality control is a technical function that includes all the scientific precautions, such as calibrations and duplications that are needed to acquire data of known and adequate quality.

Quality Management Plan (QMP) - A QMP is a document that describes an organization's/program's quality system in terms of the organizational structure, policy and procedures, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, documenting, and assessing all activities conducted. A QMP documents the overall organization/program, and is primarily applicable to multi-year, multi-project efforts. An organization's/program's QMP shall address all elements listed in the EPA/240/B-01/002.

**Quality System -** A quality system is the means by which an organization manages its quality aspects in a systematic, organized manner and provides a framework for planning, implementing, and assessing work performed by an organization and for carrying out required quality assurance and quality control activities.

- R-2 EPA Requirements for Quality Management Plans (EPA/240/B-01/002) March, 2001, <a href="http://www.epa.gov/quality/qs-docs/r2-final.pdf">http://www.epa.gov/quality/qs-docs/r2-final.pdf</a>
- R-5 EPA Requirements for QA Project Plans (EPA/240/B-01/003) March, 2001 http://www.epa.gov/quality/qs-docs/r5-final.pdf

**Substantive Change** - Substantive change is any change in an activity that may alter the quality of data being used, generated, or gathered.

#### **NERL's Quality System Specifications:**

- (1) A description of the organization's Quality System (QS) and information regarding how the QS is documented, communicated and implemented;
- (2) An organizational chart showing the position of the QA function;
- (3) Delineation of the authority and responsibilities of the QA function;
- (4) The background and experience of the QA personnel who will be assigned to the project; and
- (5) the organization's general approach for accomplishing the QA specifications in the SOW.

#### Category Level Designations (determines the level of QA required):

**Category I Project** - applicable to studies performed to generate data used for enforcement activities, litigation, or research project involving human subjects. The QAPP shall address all elements listed in R-5.

- **Category II Project** applicable to studies performed to generate data used in support of the development of environmental regulations or standards. The QAPP shall address all elements listed in R-5.
- Category III Project applicable to projects involving applied research or technology evaluations. The QAPP shall address the applicable sections of R-5, as outlined in the NERL QAPP requirements for the specific project type (see below).
- **Category IV Project** applicable to projects involving basic research or preliminary data gathering activities. The QAPP shall address the applicable sections of R-5, as outlined in the NERL QAPP requirements for the specific project type (see below).

#### Guidance for QAPPs by Project Type (described in more detail on subsequent pages):

These outlines of NERL QAPP Requirements for various project types, from Appendix B of the NERL QMP (except where otherwise noted), are condensed from typically applicable sections of R-5 (EPA Requirements for QA Project Plans) and are intended to serve as a starting point when preparing a QAPP. These lists and their format may not fit every research scenario, and QAPPs must conform to applicable sections of R-5 in a way that fully describes the research plan and appropriate QA and QC measures to ensure that the data are of adequate quality and quantity to fit their intended purpose.

- Applied Research Project pertains to a study performed to generate data to demonstrate the performance of accepted processes or technologies under defined conditions. These studies are often pilot- or field-scale. Additional guidance is given in "QAPP Requirements for Applied Research Projects".
- Basic Research Project pertains to a study performed to generate data used to evaluate unproven theories, processes, or technologies. These studies are often bench-scale. Additional guidance is given in "QAPP Requirements for Basic Research Projects".
- Design, Construction, and/or Operation of Environmental Technology Project pertains to engineering projects involving environmental technologies, an all inclusive term used to describe pollution control devices and systems, waste treatment processes and storage facilities, and site remediation technologies and their components that may be utilized to remove pollutants or contaminants from or prevent them from entering the environment. Comprehensive guidance can be found in the EPA Quality System document "Guidance on Quality Assurance for Environmental Technology Design, Construction, and Operation" G-11, at <a href="http://www.epa.gov/quality/qs-docs/g11-final-05.pdf">http://www.epa.gov/quality/qs-docs/g11-final-05.pdf</a>.
- **Method Development Project** pertains to situations where there is no existing standard method, or a standard method needs to be significantly modified for a specific application. Additional guidance is given in "QAPP Requirements for

Method Development Projects".

Model Development Project - includes all types of mathematical models including static, dynamic, deterministic, stochastic, mechanistic, empirical, etc.

Comprehensive guidance is provided in the EPA Quality System document "Guidance for Quality Assurance Project Plans for Modeling" G-5M, <a href="http://www.epa.gov/quality/qs-docs/g5m-final.pdf">http://www.epa.gov/quality/qs-docs/g5m-final.pdf</a>. Abbreviated guidance is provided in "QAPP Requirements for Research Model Development and Application Projects".

Sampling and Analysis Project - pertains to the collection and analysis of samples with no objectives other than to provide characterization or monitoring information. Additional guidance is given in "QAPP Requirements for Sampling and Analysis Projects".

Secondary Data Project - pertains to environmental data collected from other sources, by or for EPA, that are used for purposes other than those originally intended.

Sources may include: literature, industry surveys, compilations from computerized databases and information systems, and computerized or mathematical models of environmental processes. Additional guidance is given in "QAPP Requirements for Secondary Data Projects".

Software Development Project - pertains to projects dealing with software development or data management and includes all types of software/hardware systems development, data base design and maintenance, and data validation and verification systems. Additional guidance is given in "QAPP Requirements for Software and Data Management Projects" <a href="http://www.epa.gov/ORD/NRMRL/qa/pdf/softwaredev.pdf">http://www.epa.gov/ORD/NRMRL/qa/pdf/softwaredev.pdf</a>.

Projects Generating or Using GIS/Remote Sensing Data - GIS can embrace many disciplines. One may need to consider the other area-specific elements in their QA plan. Comprehensive guidance can be found in the EPA Quality System document "Guidance for Geospatial Data Quality Assurance Project Plans" QA/G5G <a href="http://www.epa.gov/quality/qa\_docs.html">http://www.epa.gov/quality/qa\_docs.html</a>. As a minimum requirement, the grantee must address the following elements in the QA Project Plan:

- 1. Positional Accuracy
- 2. Attribute Accuracy
- 3. Logical Consistency
- 4. Resolution Accuracy
- 5. Completeness of:
- a. Coverage
- b. Classification
- 6. Time

- the deviation of a mapped object from its true ground position.
- the accuracy of the variables describing a map feature
- the logical relations among data elements the smallest discernible unit or object represent
- the smallest discernible unit or object represented in the GIS

proportion of data available for the area of interest assessment of how well the chosen classification is able to represent the data

whether the data is up-to-date enough of its intended

Page 11 of 12

7. Lineage

the history of the data set, including its sources and processing steps.

#### Projects that Involve Information Management (IM)

Proper management of data using computer hardware and software must be addressed. Computer hardware/software configurations shall be installed, tested, used, maintained, controlled and documented to meet the requirements of the intended use. Some QA/QC elements described below ensure that the integrity of data is maintained and that the processing and assessment activities are valid, reproducible, and defensible:

- 1. Data Input
- 2. Data Transfers
- 3. Software lineage
- 4. Hardware Environment
- 5. Comprehensive Testing
- 6. Records Archiving

#### Projects that Involve Surveys (Questionnaire Forms):

The following QA Considerations should be addressed in preparing survey forms: Items in the form should be

Relevant to what the project is trying to measure

Concise

Unambiguous

Single-thought oriented (only one question/item)

The data from the forms should be processed using systems that comply with the IM QA consideration (stated above).



#### Quality Assurance Surveillance Plan STREAMS II Task Order 0008, Battelle EP-C-11-0038

TITLE: Technical Support for Site Characterization and Monitoring Technical Support Center (SCMTSC) TOM: William Hagel

Performance Objective (Task)	Performance Standard (PS)	Surveillance Plan (SP)	Contractor Incentive (CI)	or X
Objective 1  Facilitate the use and implementation of state-of- the-science research products developed by EPA and other Federal research laboratories for regional EPA personnel to characterize and monitor hazardous constituents waste sites	Contractor provides information on innovative technologies where applicable for site specific projects	TOM will document whether quality of deliverable is at an acceptable level.	TOM will address compliance in PPE	X
Objective 2 Ensure coordination and consistency in the application of contaminant characterization technologies	Contractor provides review of characterization technologies as needed and comments on use.	TOM will document whether receipt of deliverable is timely. TOM will document whether quality of deliverable is at an acceptable level.	TOM will address compliance in PPE	x
Objective 3  Provide high technology state-of-the-science information, products and services to Waste Program Project Managers.	Contractor provides full and complete documentation of reviews within 90 days of request	TOM will document whether receipt of deliverable is timely. TOM will document whether quality of deliverable is at an acceptable level.	TOM will address compliance in PPE	x
Objective 4 Facilitate the evaluation and application of innovative characterization and monitoring technologies and techniques at waste sites	Contractor provides full and complete evaluation and documentation of reviews.	TOM will document whether receipt of deliverable is timely. TOM will document whether quality of deliverable is at an acceptable level.	TOM will address compliance in PPE	x
Objective 5 Technical support through expert review of scientific documents related to hazardous site investigations and characterization	Contractor provides expertise and full reviews of EPA provided documents.	TOM will document whether receipt of deliverable is timely. TOM will document whether quality of deliverable is at an acceptable level.	TOM will address compliance in PPE	x